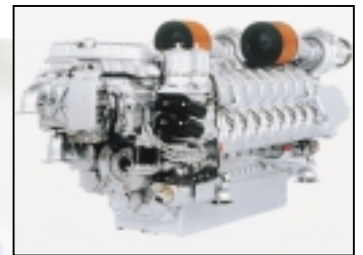


SEPAR FILTER

SEPAR 2000

WITH FUEL HEATING SYSTEM



The SEPAR 2000 filter equipped with an electric fuel heating system improves the start up of diesel engines in cold weather conditions at or below 0°C **and** separates the water and particulate which is contained in the fuel – as described in the attached folder.

SEPAR 2000 with heater offers:

- 1 Efficient heating performance
- 2 Improved engine start-up
- 3 Heater controlled automatically
- 4 Compact design

SEPAR 2000

FUNCTION OF THE SEPAR 2000 WITH FUEL HEATING

Heat is transmitted to the aluminium centrifuge and vane section very efficiently, so as the fuel enters the filter it starts to become warm. The warmed fuel prevents the filter becoming clogged by paraffin that has formed due to very low temperatures. The fuel filter heating system is controlled by a thermostat which activates the heater at 5° C, if the fuel temperature reaches 10° C the heater is switched off as the fuel heating system is not necessary. A pilot lamp located in the switch indicates when the thermostat has activated the heating system. The system is fully protected by a fuse in the filter housing that protects the heater in the unlikely event that the heater temperature reaches 80° C, also a fuse is fitted to the heater power supply.

The SEPAR heated fuel filter should be installed according to the instructions in the literature provided and in accordance with the connection diagrams shown on the last page.

APPLICATION

SEPAR 2000 filters with heater can be installed on any diesel engine with either a 12 or 24 volt electrical system. Preferred applications are trucks, buses, construction and agricultural equipment as well as stationary engine applications that are used in cold climates

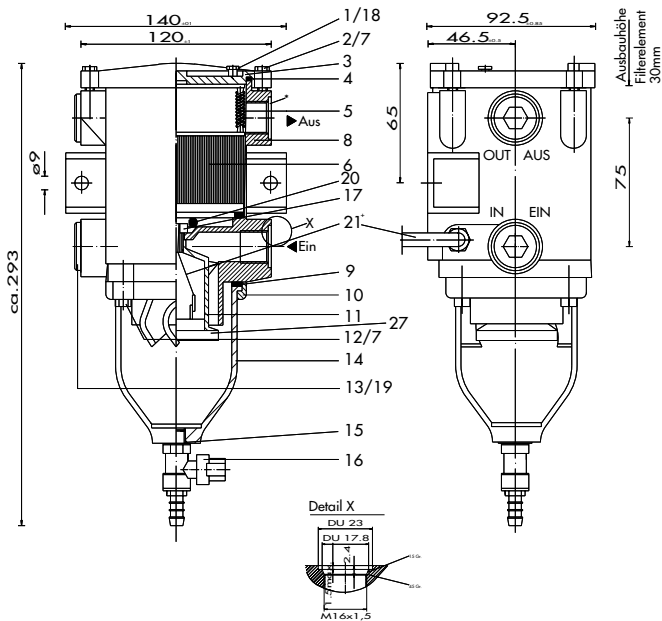
The filters can be supplied in two alternative switching configurations:

1. The heated models SWK 2000/5/50/H and SWK 2000/10/H are supplied with an 'on' and 'off' switch fitted with a pilot lamp that indicates when the heater is on. To activate the heater move the switch to the 'on' position, then start the engine, the heater will now be on if the fuel temperature is below 5° C and the pilot lamp will be illuminated. The heater is powered by the engine alternator and controlled thermostatically. If the diesel engine is stopped then the heater will be switched off automatically. The heated SEPAR filter is connected to the vehicle's electrical system by standard flat 'push on' connections.
2. The versions SWK 2000/5/50/HZ and SWK 2000/10/HZ offer in addition to the above, pre-heating of the fuel prior to starting the engine. This has the benefit of improved engine start up, in conditions of extremely low ambient temperatures. When the ignition is switched on, the SEPAR heating system is activated for 3 minutes by a time relay, prior to start up. Therefore the engine is supplied with heated fuel in the critical start up period. Once the engine is started a thermostat controls the heating system as described in 1 above.

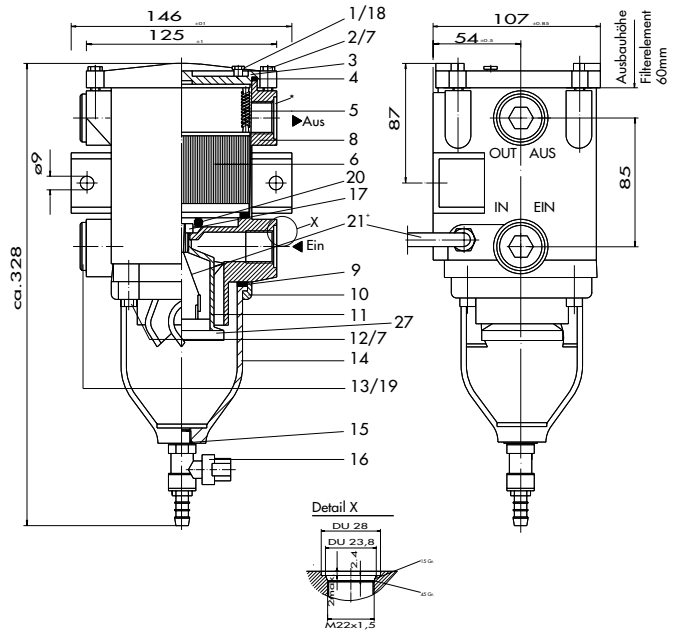
SEPAR 2000

DIMENSIONS OF THE FILTERS

SWK 2000/5/50/H (HZ)

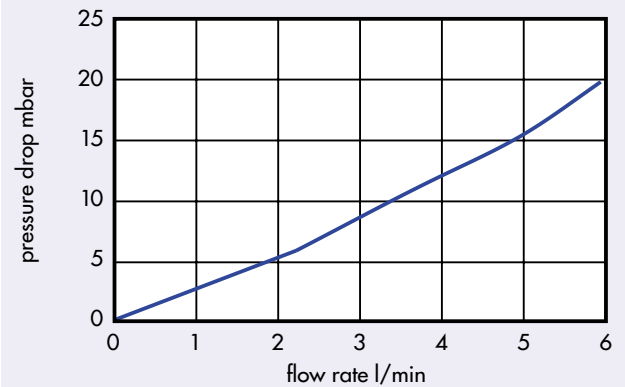


SWK 2000/10/H (HZ)



POS.	ARTICLE-NR.		PIECES	DESCRIPTION
	SWK 2000/5/50/H	SWK 2000/10/H		
1	30408	30408	1	bleed valve
2	30430	30567	4	screw (lid)
3	30542	30553	1	lid
4	30545	30556	1	lid gasket
5	30296	30297	1	spring cassette
6	00530/50H	01030/H	1	filter element
7	30447	30448	8	washer
8	10175	10130	1	housing
9	30565	30576	1	bowl gasket
10	30564	30569	1	bowl retainer ring
11	10141	10142	1	centrifuge
12	30561	30568	4	screw (for bowl retainer ring)
13	30471	30226	2	blind screw
14	30984	30985	1	bowl
15	40002	40002	1	gasket
16	30366	30366	1	drain cock
17	10112	10112	1	hollow screw
18	30558	30558	1	gasket f. Pos. 1
19	30472	40003	2	gasket f. Pos. 13
20	10101	10101	1	board f. temperature control
21	10103	10103	1	cablе outlet
22	10105	10105	1	set screw
23	30053-1	30053-1	1	heater switch
24	30054-1	30054-1	1	relay 24 V
25	30055	30055	1	fuse 20 A
26	30087	30087	9	flat plug
27	10123	10118	1	heater 24 V 350 W

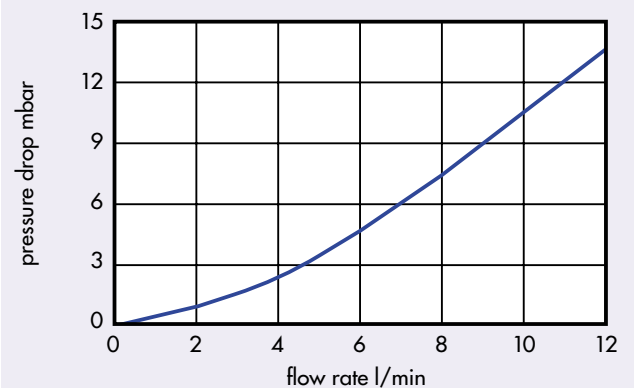
FLOW DIAGRAM SWK 2000/5/50/H (HZ)



Max. flow rate: 5 l/min

Thread: M 16 x 1,5

FLOW DIAGRAM SWK 2000/10/H (HZ)



Max. flow rate: 10 l/min

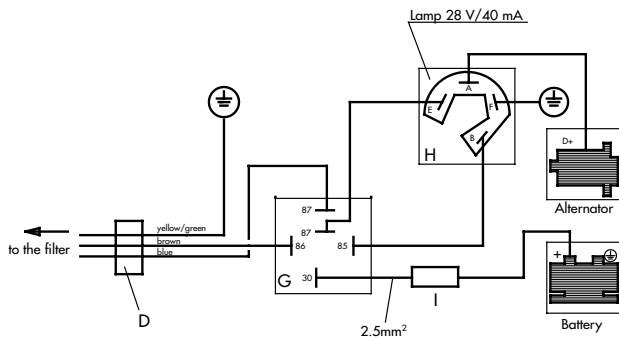
Thread: M 22 x 1,5

SEPAR FILTER

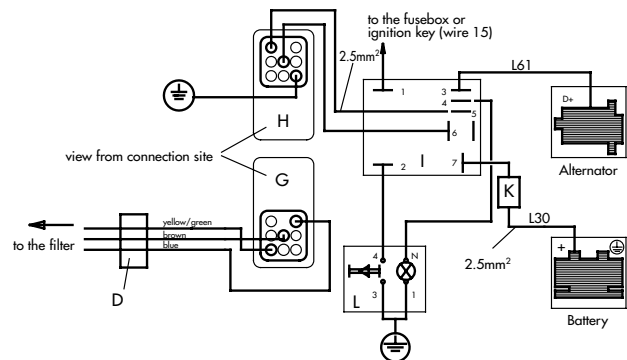
SEPAR 2000

ELECTRIC INSTALLATION

SWK 2000/ /H – WITHOUT PRE HEATING



SWK 2000/ /HZ – WITH PRE HEATING



POS.	DESCRIPTION
D	cable outlet
G	relay
H	heater switch with pilot light
I	fuse carrier with fuse 20 A

POS.	DESCRIPTION
D	cable outlet
G	base plug
H	opposing plug
I	time delay relay
K	fuse carrier with fuse 20 A
L	illuminated push button (24 V/0,6 W)

AVAILABLE VERSIONS

TYPE	PERFORMANCE	SPARE ELEMENTS– PORE SIZE	MAX. FLOW RATE
SWK-2000/5/50/H	250 W/12 V	530/50 H – 30 mic 510/50 H – 10 mic	5 l/min
SWK-2000/5/50/H	350 W/24 V	530/50 H – 30 mic 510/50 H – 10 mic	5 l/min
SWK-2000/5/50/HZ	350 W/12 V	530/50 H – 30 mic 510/50 H – 10 mic	5 l/min
SWK-2000/10/H	350 W/24 V	1030 H – 30 mic 1010 H – 10 mic	10 l/min
SWK-2000/10/H	450 W/24 V	1030 H – 30 mic 1010 H – 10 mic	10 l/min
SWK-2000/10/HZ	350 W/24 V	1030 H – 30 mic 1010 H – 10 mic	10 l/min
SWK-2000/10/HZ	450 W/24 V	1030 H – 30 mic 1010 H – 10 mic	10 l/min

NOTE

All of the aforementioned types have been approved by the german Kraftfahrt-Bundesamt located in Flensburg with "Allgemeine Betriebserlaubnis" - No. 90533

For installation and maintenance please follow the recommendations in our literature.

We reserve the right to make technical changes without notification

Willibrord Lösing
Filter-Technik



Postfach 866009
45517 Hattingen
Essener Straße 108
45529 Hattingen
Telefon 02324/94600
Telefax 02324/40842